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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/390,420	09/03/1999	BARRY W. FIELD	062891.0368	6854

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EXAMINER	
BLOUNT, STEVEN	

ART UNIT	PAPER NUMBER
2661	15

DATE MAILED: 01/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.	Applicant(s)
09/390,420	Field et al
Examiner	**Group Art Unit**
Blount	2661

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication .
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

☒ Responsive to communication(s) filed on 10/7/03.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle,* 1935 C.D. 1 1; 453 O.G. 213.

Disposition of Claims

☒ Claim(s) 1-28 ~~is~~/are pending in the application.

Of the above claim(s)_____ is/are withdrawn from consideration.

☐ Claim(s)_____ is/are allowed.

☒ Claim(s) 1-28 ~~is~~/are rejected.

☐ Claim(s)_____ is/are objected to.

☐ Claim(s)_____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The proposed drawing correction, filed on_____ is ☐ approved ☐ disapproved.

☐ The drawing(s) filed on_____ is/are objected to by the Examiner.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 11 9(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number)_____.

☐ received in this national stage application from the International Bureau (PCT Rule 1 7.2(a)).

*Certified copies not received:_____.

Attachment(s)

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s)._____

☒ Notice of Reference(s) Cited, PTO-892

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Interview Summary, PTO-413

☐ Notice of Informal Patent Application, PTO-152

☐ Other_____

Office Action Summary

DETAILED ACTION

1. Prosecution is reopened in this case and the rejections previously made in paper number 10 are revoked in view of the new rejections made below.

Claim Rejections - 35 U.S.C. § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1 - 12 and 14 - 28 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,018,525 to Sucharczuk in view of the applicants admitted prior art (hereinafter referred to as AAPA).

With regard to claim 1, Sucharczuk teaches receiving traffic streams (at least channels 1 through 24 in figure 4; see also col 3, lines 9+ where the extended frame format of these traffic streams is discussed), wherein A and B signaling bits (mentioned in col 3 lines 13+) "convert the voice band channel into an ATM cell, octets from the voice band channel are mapped into ATM cell octets. After 47 octets have been filled in a cell, a new cell is must be created." (col 3, lines 50+) which corresponds to segmenting the first components of the traffic streams into successive cells; and also distributing the second (signaling) components of the traffic streams between a defined set of the cells for in band transmission of these second components in a

payload of each of the cells, as is taught in col 3 line 37: "This means that the A and B bits remain embedded within the user information transported by the ATM cells" and in line 56 of Column 3: "A bits occur in the 6th octet, the 18th octet, the 39th octet, and the 42nd octet in the first cell. The next A bit will occur 12 octets later - in the 7th octet of the next cell payload".

Sucharczuk does not explicitly teach that the signaling elements ("CAS", see col 2 line 50) are of a "reduced rate" (claim 1, line 4). However, AAPA teaches that "The CAS bits indicate the on or off hook status of a telephony line in connection with a DS-0 and are provided at a reduced rate in comparison to the DS-0 in accordance with telephony standards. (Page 3, lines 10+ of the specification). AAPA also teaches on page 2, last line to page 3, lines 1+ that "Telephony traffic is carried in DS-0 channels that include an 8 bit voice sample transported through the network at regular 125 microsecond intervals. In the case of structured AAL1, a number of such DS-0 bytes are group together in the payload of an ATM cell then carried through an ATM network in the ATM cell.

In view of the teachings of AAPA, the examiner believes that one of ordinary skill in the art at the time of the invention would have found it obvious to associate the CAS elements of Sucharczuk with having a "reduced rate".

With regard to claim 2, the process discussed above as well as the distribution of the signaling bits mentioned in column 3 lines 50+ would suggest evenly distributing the signaling bits between the defined set of cells.

With regard to claim 3, see col 3 lines 53+.

With regard to claim 4, see the superframe in figure 1 and note that since the information originally came in a superframe, this would suggest having the defined set of cells in a superframe.

With regard to claim 5, the second components for the traffic streams are located in the cells, and apparently for all the traffic streams. It would be further obvious to do this for all of the traffic streams to make the most efficient use of the resources.

With regard to claim 6, see col 2 lines 52 - 56, discussing the ESF and CAS members.

With regard to claim 7, note in the rejection of claim 1 that the CAS values are said to be associated with on/off hook status.

With regard to claim 8, see the discussion of claim 1 above.

With regard to claim 9, ATM is mentioned in the first paragraph of column 1.

With regard to claim 10, see the rejection of claim 1 above, and note the mention of AAL in col 1 lines 40+, col 3 lines 17+, and page 3 lines 14+ of AAPA.

With regard to claim 11, in col 3 lines 55+ it is mentioned that the A bits are repeated in the payload of each individual cell as well as in the payloads of the next cells.

With regard to claim 12, column 3 line 64 discusses the use of a 4-bit sequence number.

With regard to claim 14, each of the limitations in these claims is discussed above.

With regard to claim 15, the use of a 24 frame ESF (see fig 1) would render obvious having the superframe contain 24 AAL cells.

With regard to claim 16, the use of "a 12 frame Superframe (SF) structure or a 24 frame Extended Superframe (ESF) structure" is mentioned, which would render obvious the use of a superframe which contains 16 AALS cells.

With regard to claims 17 - 22, see the rejection of claim 1 above.

With regard to claim 23, note the apparatus in figure 3 in conjunction with the operation of the "logic diagram" in figure 4 for which the ports claimed in line 2 would be inherent in the apparatus of figure 3; further note the separation step in col 3 lines 10+ and the mention of segmentation in the summary of the invention in column 2, and further note the method of operating this apparatus as discussed in the rejection above.

With regard to claims 24 - 28, each of these apparatus limitations may be found in the discussion of the method rejections above in combaination with the discussion of claim 23 as also above.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being obvious over U.S. patent 6,018,525 to Sucharczuk in view of the applicants admitted prior art (AAPA) as applied above, and further in view of U.S. patent 6,243,382 to O'Neil et al.

Sucharczuk/AAPA teach the invention as described above (see especially col 2 line 8 discussing reinsertion) but do not teach storing a value for the reduced rate second components for each traffic stream in a memory before insertion.

O'Neil teaches using a memory to hold information (cells) for the later insertion of them into a packet. See column 18 lines 53+.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have stored the second components in memory before insertion, in light of the teachings of O'Neil, in order to allow the system time to perform the assembly operation.

(The examiner submits that having a memory store the value in Sucharczuk would be obvious in its own right, since in col 2 lines 8+ (Background), it is stated that "The reinsertion point is often in a different frame than the original frame", which would practically necessitate the use of a memory unless the system can somehow instantly transform the information from one frame to another during the assembly process, an unlikely scenario).

5. Examiner Blount may be reached at 703-305-0319 between the hours of 9:00 and 5:30 Monday through Friday.

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1/19/04